

Attorney Docket No. 012774-003

Receipt
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

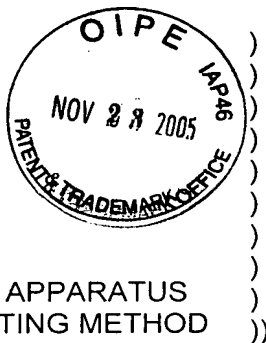
In re Patent Application of

Hiroaki Sano et al.

Application No.: 10/525,979

Filed: February 28, 2005

For: TUBE CONNECTING APPARATUS
AND TUBE CONNECTING METHOD



Group Art Unit: 3745

Examiner:

Confirmation No.: 5008

REQUEST FOR CORRECTED OFFICIAL FILING RECEIPT

Commissioner for Patents
Office of Initial Patent Examination
Customer Service Center
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is a copy of the Official Filing Receipt marked in red to show correction that is needed. The correction is as follows:

The change the title to - - TUBE CONNECTING APPARATUS AND TUBE CONNECTING METHOD - -

Issuance of a corrected Official Filing Receipt is respectfully requested.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: November 23, 2005

By: Matthew L. Schneider
Matthew L. Schneider
Registration No. 32,814

P.O. Box 1404
Alexandria, Virginia 22313-1404
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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/525,979	02/28/2005	3754	900	012774-003	10	13	2

21839

BUCHANAN INGERSOLL PC
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CONFIRMATION NO. 5008

FILING RECEIPT



OC000000016715783

Date Mailed: 11/16/2005

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Hiroaki Sano, Yamanashi, JAPAN;
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 Shinji Ishida, Yamanashi, JAPAN;
 Satoshi Yamanushi, Yamanashi, JAPAN;
 Hideya Fujihara, Yamanashi, JAPAN;
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BUCHANAN INGERSOLL PC

NOV 18 2005

DOCKETED 11-18-05 BSH

Assignment For Published Patent Application

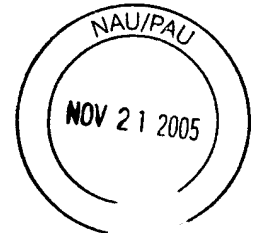
Terumo Kabushiki Kaisha, Tokyo, JAPAN

Power of Attorney: The patent practitioners associated with Customer Number 21839.**Domestic Priority data as claimed by applicant**

This application is a 371 of PCT/JP03/11044 08/29/2003

Foreign Applications

JAPAN 2002-252457 08/30/2002

Projected Publication Date: To Be Determined - pending completion of Security Review**Non-Publication Request:** No

012774-003
 MLS/NEW

Early Publication Request: No

Title Tube connecting Tube Connecting
~~Tube-joining apparatus and tube-joining-method~~

Preliminary Class

138

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DT07 Rec'd PCT/PTO 28 FEB 2005

Applicant/

Inventor: Hiroaki Sano et al.

Appl. No.: _____

Docket No.: 012774-003

Working-Atty.: William C. Rowland / rsc

Date: February 28, 2005

Title: TUBE CONNECTING APPARATUS AND TUBE CONNECTING METHOD

10/525979

Dkt. Clerk Initials



The following was/were received in the U.S. Patent and Trademark Office on the date stamped hereon:

- ☐ Transmittal Letter to the U.S. Receiving Office/ Response to Invitation (PTO-1382)
- ☒ Transmittal Letter to U.S. Designated/Elected Office (DO/EO/US) Concerning Filing Under 35 USC 371 (PTO-1390)
- ☐ PCT Request (PCT/RO/101) (_____) pgs.

INCLUDING:

- ☒ Specification (pages 1 - 23)
- ☒ Claims (claims(s) 1 - 14 , 4 pgs.)
- ☒ Drawings (Fig(s). 1 - 10C , 10 pgs.)
- ☒ Abstract of the Disclosure
- ☐ PCT Fee Calculation Sheet Annex to the Request (PCT/RO/101 (Annex))
- ☐ PCT Demand (PCT/IPEA/401) International Preliminary Examination Report
- ☐ PCT Fee Calculation Sheet Annex to Demand for Int'l. Preliminary Exam. (PCT/IPEA/401 (Annex))

- ☐ PCT Notice of Confirmation of Precautionary Designations (PCT/RO/144)
- ☒ Executed Declaration/Power of Attorney
- ☐ Unexecuted Declaration/Power of Attorney
- ☒ Assignment/Assignment Recordation Form Cover Sheet (PTO-1595)
- ☐ Appointment of Agent
- ☒ Preliminary Amendment
- ☐ Information Disclosure Statement Transmittal
- ☒ Information Disclosure Citation (PTO-1449)
- ☒ Information Disclosure Statement w/ 8 document(s)
- ☒ Patent Application Data Sheet
- ☒ Gen. Authorization for Petition for Ext. of Time and Payment of Fees
- ☐ Diskette

- ☐ Check for \$ _____ is enclosed
- ☐ Check for \$ _____ is enclosed
- ☐ Charge \$ _____ to Deposit Account
- ☒ Charge \$ 1,040.00 to credit card. Form PTO-2038 is attached.
- ☒ Amendment under PCT Article 19

- ☒ PCT/ISA/210
- ☒ WO 2004/022317 A1
- ☐

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Applicant/

Inventor: Hiroaki Sano et al.

Appl. No.: _____

Docket No.: 012774-003

Working Atty.: William C. Rowland / rsc

Date: February 28, 2005

Title: TUBE CONNECTING APPARATUS AND TUBE CONNECTING METHOD

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- ☐ PCT Demand (PCT/IPEA/401) International Preliminary Examination Report
- ☐ PCT Fee Calculation Sheet Annex to Demand for Int'l. Preliminary Exam. (PCT/IPEA/401 (Annex))

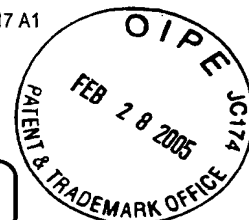
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- ☐ Appointment of Agent
- ☒ Preliminary Amendment
- ☐ Information Disclosure Statement Transmittal
- ☒ Information Disclosure Citation (PTO-1449)
- ☒ Information Disclosure Statement w/ 8 document(s)
- ☒ Patent Application Data Sheet
- ☒ Gen. Authorization for Petition for Ext. of Time and Payment of Fees
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Patent
Attorney's Docket No. 012774-003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	Group Art Unit: Unassigned
Hiroaki SANO et al.)	Examiner: Unassigned
Application No.: Unassigned)	Confirmation No.: Unassigned
Filed: February 28, 2005)	
For: TUBE CONNECTING APPARATUS)	
AND TUBE CONNECTION METHOD)	
(As Amended))	

PRELIMINARY AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Prior to examination, kindly amend the above-captioned application as follows:

AMENDMENTS TO THE SPECIFICATION:

Please replace the title with the following amended title:

**"~~TUBE JOINING~~ TUBE CONNECTING APPARATUS AND ~~TUBE JOINING~~ TUBE
CONNECTING METHOD"**

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) A tube connecting apparatus having a first holding assembly and a second holding assembly which hold at least two flexible tubes approximately in a parallel state, comprising:

a first pressing unit which is provided at the first holding assembly and which presses the tubes to a flat state;

a second pressing unit which is provided at the second holding assembly and which presses the tubes to a flat state and which is allowed to be located so as to contact the first pressing unit;

a supporting member which supports at least one of the first and second pressing units such that a pressing amount of the at least one of the first and second pressing units to the tubes changes;

a cutting unit which cuts the tubes between the first and second pressing units;

a first movement unit which moves at least one of the first and second holding assemblies to change relatively positions of the tubes cut by the cutting unit such that end portions to be connected face each other; and

a second movement unit which moves at least one of the first and second holding assemblies in a direction that the first pressing unit and the second pressing unit separate and a direction that the end portions to be connected of the tubes cut by the cutting unit contact closely each other.

2. (Canceled)

3. (Previously Presented) A tube connecting apparatus according to claim 1, further comprising a position regulating member which regulates at a predetermined position the at least one of the first and second pressing units supported by the supporting member.

4. (Previously Presented) A tube connecting apparatus according to claim 1, wherein the first pressing unit has a first engagement portion and the second pressing unit has a second engagement portion, and wherein, when the at least one of the first and second holding assemblies is driven to move in a direction that the holding assemblies separate from each other by the second movement unit, the supporting member gradually changes the pressing amount of the at least one of the first and second pressing units to the tubes in accordance with a moving amount of the supporting member.

5. (Original) A tube connecting apparatus according to claim 4, wherein the first engagement portion and the second engagement portion have a first inclined face and a second inclined face which engage each other, and wherein the first inclined face and the second inclined face slidably contact each other while increasing or decreasing engaging force in proportion to a separated distance between the first and second holding assemblies according to driving of the second movement unit.

6. (Previously Presented) A tube connecting apparatus according to claim 1, wherein the second movement unit moves the second holding assembly and the supporting member supports the first pressing unit.

7. (Original) A tube connecting apparatus according to claim 6, wherein, when the second holding assembly is driven to move in a direction that the second holding assembly

is separated from the first holding assembly by the second movement unit, the first pressing unit moves along a length direction of the tubes from a first pressing position where the second holding assembly is located before movement of the second holding assembly starts to a second pressing position while gradually increasing the pressing amount.

8. (Original) A tube connecting apparatus according to claim 7, wherein the first pressing unit which is located at the second pressing position presses the tubes with a pressing amount approximately equivalent to a pressing amount of the second pressing unit to the tubes.

9. (Original) A tube connecting apparatus according to claim 1, wherein the first holding assembly is driven to move in a first direction which is a width direction of the tubes by the first movement unit, and the second holding assembly is driven to move in a second direction which is a length direction of the tubes and which intersects the first direction by the second movement unit.

10. (Original) A tube connecting apparatus according to claim 9, wherein the first movement unit moves the first holding assembly in the first direction to change relatively positions of the tubes cut by the cutting unit such that the end portions to be connected of the tubes face each other, the second movement unit moves the second holding assembly in the second direction such that the end portions to be connected of the tubes contact closely each other, and wherein a distance between the first pressing unit provided at the first holding assembly which is movable in the first direction and the cutting unit is set to be larger than a distance between the second pressing unit provided at the second holding unit which is movable in the second direction and the cutting unit.

11. (Original) A tube connecting apparatus according to claim 10, wherein a moving distance of the first holding assembly in the first direction is set to be larger than a moving distance of the second holding assembly in the second direction.

12. (Original) A tube connecting method for cutting and then connecting at least two flexible tubes, comprising the steps of:

pressing the tubes put approximately in a parallel state at a first position on the tubes to deform the tubes to a flat state;

pressing the tubes at a third position on the tubes which is adjacent to the first position to hold the tubes in a flat state;

pressing the tubes at a second position on the tubes which is a position separate from the first position and which is a position opposing to the third position via the first position to hold the tubes in a flat state;

advancing a cutting plate having a predetermined temperature between the second and the third positions to cut the tubes;

moving relatively the tubes which have been cut to face one end portion and another end portion to be connected of the tubes; and

evacuating the cutting plate from a predetermined cutting position located between the second and third positions to contact the end portions of the tubes closely each other for connecting the tubes.

13. (Original) A tube connecting method according to claim 12, wherein a pressing amount to the tubes is set to be gradually larger corresponding to a change in a pressing position on the tubes from the first position to the second position.

14. (Original) A tube connecting method according to claim 13, wherein a pressing amount to the first and second tubes at the second position is approximately equal to a pressing amount to the tubes at the third position.

REMARKS

The claims presented herewith correspond to the International claims as amended under Article 19. The title has been amended to conform to the English language translation.

It is requested that the application be examined on the basis of the title as amended.

Early and favorable consideration with respect to this application is respectfully requested.

Should any questions arise in connection with this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: February 28, 2005

By: William C. Rowland
William C. Rowland
Registration No. 30,888

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